

Section II (Remarks)**A. Summary of Amendment to the Claims**

Claims 1 and 22 have been amended to recite that the pressurization gas inlet of the packaging article “compris[es] a gland adapted to prevent gas leakage.” Support exists in the disclosure for such amendments, for example, at page 7, paragraph [0021]. Claims 81 and 85, which previously recited the gland limitation, have been cancelled as redundant.

Claims 18 and 19 have been amended to depend from claim 1 instead of (previously cancelled) claim 17.

Claims 20 and 21 have been amended to recite “containing” instead of the phrase “wherein the product article comprises.”

No new matter within the meaning of 35 USC § 132, nor any matter requiring additional consideration or search, has been added by virtue of the foregoing amendments,

B. Rejections Under 35 U.S.C. § 112, Second Paragraph

In the May 12, 2006 Office Action, claims 18-21 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Specifically, claims 18-19 depended from cancelled claim 17, and claims 20-21 indirectly depended from cancelled claim 17 by virtue of depending from claim 19. In response to such rejections, claims 18 and 19 have been amended to depend from claim 1. Accordingly, withdrawal of the rejections of claims 18-21 under 35 U.S.C. § 112, second paragraph is respectfully requested.

C. Rejections Under 35 U.S.C. § 103

The May 12, 2006 Office Action contained various claim rejections under 35 U.S.C. § 103, as summarized below:

- Claims 1, 2, 5, 6, 10, 14, 18-22, 25-26, 30, 34, 37-41, 43-46, and 80-87 were rejected under 35 U.S.C. § 103 as obvious over U.S. Patent No. 4,055,672 to Hirsch et al. (“Hirsch”) in view of U.S. Patent No. 4,539,836 to Hester et al. (“Hester”);

- Claims 3-4 and 23-24 were rejected under 35 U.S.C. § 103 as obvious over Hirsch in view of Hester, and further in view of U.S. Patent No. 5,217,772 to Brown et al. (“Brown”);
- Claims 7-9, 11, 27-29, 31, 42, and 47-49 were rejected under 35 U.S.C. § 103 as obvious over Hirsch in view of Hester, and further in view of U.S. Patent No. 5,418,022 to Anderson, et al. (“Anderson”).

As applied to the amended claims provided herewith, the above-mentioned claim rejections under 35 U.S.C. 103 are traversed for the reasons provided below

1. Law Regarding Obviousness

Three requirements must be met for a *prima facie* case of obviousness under 35 USC § 103. First the prior art reference(s) must teach all of the limitations of the claims. M.P.E.P. § 2143.03. Second, there must be a motivation to modify the reference or combine the teachings to produce the claimed invention. M.P.E.P. § 2143.01. Third, a reasonable expectation of success is required. M.P.E.P. § 2143.02. In addition, the teaching or suggestion to combine and the expectation of success must both be found in the prior art and not based on Applicant’s disclosure. M.P.E.P. § 2143.

2. Patentability of Claims 1, 2, 5, 6, 10, 14, 18-22, 25-26, 30, 34, 37-41, 43-46, and 80-87 Over Hirsch in View of Hester

Claims 1, 2, 5, 6, 10, 14, 18-22, 25-26, 30, 34, 37-41, 43-46, and 80-87 include two independent claims – namely, claims 1 and 22. As amended, independent claims 1 and 22 each require, *inter alia*, “a pressurization gas inlet ... comprising a gland adapted to prevent gas leakage.” Such limitation is inherently contained in the balance of claims, all of which depend, whether directly or indirectly, from claims 1 or 22.

The word “gland” in this context is commonly understood to mean a **structure for preventing leakage**. For example, according to Merriam-Webster’s online dictionary (www.m-w.com), “gland” may be defined as follows:

gland² (noun): 1 : a device for preventing leakage of fluid past a joint in machinery

Similarly, the American Heritage Dictionary of the English Language, as available online at www.yourdictionary.com, defines “gland” as:

gland² [gländ] n. : A device, such as the outer sleeve of a stuffing box, designed to prevent a fluid from leaking past a moving machine part.

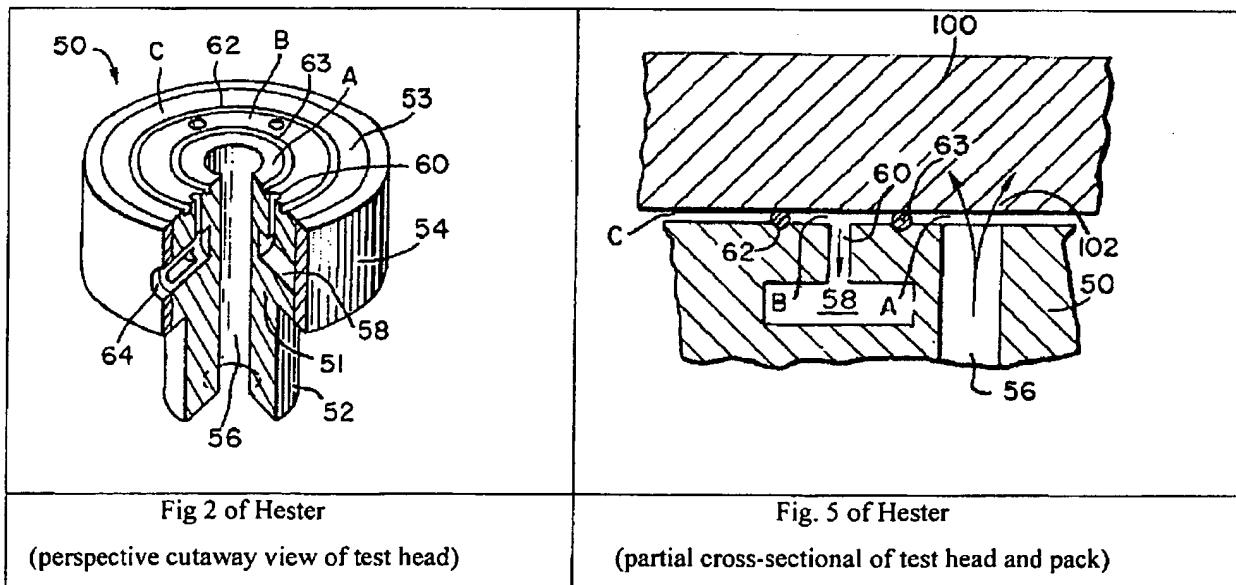
Clearly, the “gland” recited in claims 1 and 22 is not applied to a “machine part.” Such meaning is also recognized as within the definition for “gland.” For example, Wikipedia.org refers to a “gland” in the engineering context as follows:

“Other types of sealed connections without a rotating part are also sometimes called glands; for example, the point where an electrical flex exits a conduit is often sealed by an adjustable gland to prevent water ingress.”

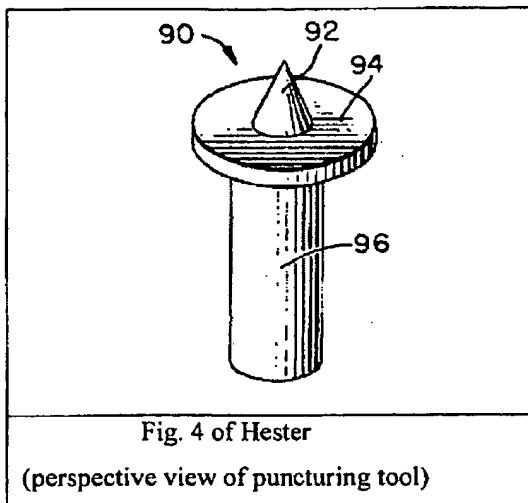
Source: [http://en.wikipedia.org/wiki/Gland %28engineering%29](http://en.wikipedia.org/wiki/Gland_%28engineering%29). Based on the foregoing, the term “gland” as used in the amended claims refers to a structure adapted to prevent leakage.

The Examiner has conceded that Hirsch “fail[s] to teach a pressurization gas inlet” (May 12, 2006 Office action, page 7).

Thereafter, the Examiner identifies Hester (entitled “Package Leak Tester”) as teaching a pressurization gas inlet. Hester is directed to a method and apparatus for automatically testing overwrap packages for leaks (Hester, col. 1, lines 5-8 & Abstract), requiring a test head in communication with sources of negative (vacuum) and positive pressure. Hester, col. 2, lines 26-27. A perspective cutaway view of the test head, and a partial cross-sectional of the test head against a pack to be tested, are provided in Hester Figs 2 and 5, as reproduced below.



A hole is punctured in the package (e.g., using the pointed tool 90 having point 92 of Fig. 4) to permit ingress of gas. Id., col. 4, lines 23-29 & lines 41-43. Such tool is illustrated below:



Following puncture of the package overwrap to define the hole, the package is positioned against the test head with the hole in the package aligned to a central bore of the test head. Id., col. 4, lines 43-44. O-rings in the test head provide an annular sealing area [area "B" in Hester Fig. 5] against the package surface around the hole. Id., col. 4, lines 44-46 & Figs. 2, 5. Negative pressure (or vacuum) applied to annular sealing area of the test head [area "B" in Hester Fig. 5] holds the package against the head while positive pressure (air) is introduced through the central bore [area "A" Hester Fig. 5] of the test head and through the hole into the package. Id., col. 2, lines 28-30 & col. 4, lines 44-50. Pressure inside the cigarette package overwrap rises, stressing the seals. Id., col. 4, lines 50-51. If the seals meet specification and no holes exist in the overwrap, then the pressure exerted by the air introduced into the overwrap will rise until it exceeds the negative pressure exerted by the vacuum system, and when the positive pressure adjacent to the central bore [i.e., area "A"] exceeds the negative pressure in the surrounding annular seal area [i.e., area "B"], the package will be ejected from the test head. Id., col. 4, lines 51-57 & Figs. 2, 5. If the seals or overwrap have leaks, then the pressure inside the package during the testing step will never rise to the point where the pressure exerted in the central bore area will exceed the suction exerted in the surrounding annular seal area, and the pack will remain in place. Id., col. 4, lines 57-61. The operator thus has a rapid and easy identification of package integrity: if the pack pops off the test head then it is acceptable; if the pack is retained by the test head then it is not acceptable. Id., col. 4, lines 61-64.

A package according to Hester having a hole formed by the tool 90 is NOT a packaging article comprising a "pressurization gas inlet ... comprising a gland adapted to prevent gas leakage" as required by the amended claims. The hole formed in a package according to Hester is a simple hole that remains open after puncture. The test head 50 illustrated in Fig. 2 provides a temporary seal against the punctured package overwrap, but that test head is clearly not part of the packaging article itself. Nothing in Hester teaches or remotely suggests any structure associated with a pressurization gas inlet of a packaging article adapted to prevent gas leakage.

The Examiner posits that "it would have been obvious to one having ordinary skill in the art to form a gland over the pressurization gas inlet in order to ensure that the pressurized gas being applied to the interior volume is only able to enter into the package and not substantially leave the package because otherwise the opening itself would allow the gas to escape too quickly for the positive pressure to overcome the negative pressure during the testing phase." (May 12, 2006 Office Action, pages 9-10). Such conjecture is not supported by the disclosure of Hester. Specifically, Hester teaches formation of a simple hole in a polypropylene overwrap of cigarette package using a pointed puncturing tool 90. An external test head 50 (illustrated in Fig. 2, as reproduced hereinabove) is positioned against the package with the hole in the package aligned to a central bore of the test head. Hester, col. 4, lines 43-44.

Negative pressure (or vacuum) applied to annular sealing area of the test head [area "B" in Hester Fig. 5] holds the package 100 against the test head 90 while positive pressure (air) is introduced through the central bore [area "A" Hester Fig. 5] of the test head and through the hole into the package. Id., col. 2, lines 28-30; col. 4, lines 44-50 & Fig. 5. Nothing in Hester suggests that the already-disclosed leak-prevention structure (i.e., in the form of the external test head 50 having O-rings 60, 62 depressed against the hole-defining package 100) is in any way deficient, or suggest to the skilled artisan any reason to modify the leak-prevention structure. In view of this perfectly workable solution, Hester provides no motivation whatsoever to modify the cigarette package to add a gland. Indeed, such modification would require a *departure* from Hester's teaching in that the pointed piercing tool 90 would be rendered useless in view of the need to otherwise form an integral gland on the outside of a cigarette package.

Since the Examiner has conceded that Hirsch fails to teach any pressurization gas inlet, and the foregoing discussion of Hester demonstrates that Hester fails to teach any packaging article comprising a pressurization inlet having a gland adapted to prevent gas leakage (as required by all of the pending claims), the prior art references fail to teach all of the limitations of the claims as required by MPEP § 2143.03 to establish a *prima facie* case of obviousness. Accordingly, withdrawal of the obviousness

rejections of claims 1, 2, 5, 6, 10, 14, 18-22, 25-26, 30, 34, 37-41, 43-46, and 80-87 is warranted, and respectfully requested.

3. Patentability of Claims 3-4 and 23-24 Over Hirsch in View of Hester, and Further in View of Brown

Claims 3-4 and 23-24 depend from independent claims 1 and 22, respectively, and inherently include all of the limitations of these independent claims. Accordingly, claims 3-4 and 23-24 each require a “packaging article ... comprising a pressurization gas inlet ... [having] a gland adapted to prevent gas leakage.” It has been previously demonstrated that such recitation is not disclosed by any combination of Hirsch and Hester. Brown is directed to an easily openable breather package for surgical elements. Nothing in Brown teaches or suggests any pressurization gas inlet adapted to permit the ingress of pressurization gas to the enclosed interior volume, let alone a pressurization gas inlet comprising a gland adapted to prevent gas leakage. Accordingly, Brown fails to supply the teachings missing in Hirsch and Hester that would be required to demonstrate a *prima facie* case of obviousness. Since the cited references fail to teach all of the limitations of the claims as required by MPEP § 2143.03 to establish a *prima facie* case of obviousness, withdrawal of the obviousness rejections of claims 3-4 and 23-24 is respectfully requested.

4. Patentability of Claims 7-9, 11, 27-29, 31, 42, and 47-49 Over Hirsch in View of Hester, and Further in View of Anderson

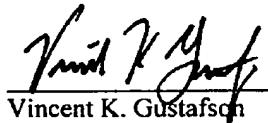
Each of claims 7-9, 11, 27-29, 31, 42, and 47-49 depends from independent claims 1 or 22, and inherently include all of the limitations of the independent claims. Accordingly, claims 7-9, 11, 27-29, 31, 42, and 47-49 each require a “packaging article ... comprising a pressurization gas inlet ... [having] a gland adapted to prevent gas leakage.” It has been previously demonstrated that such recitation is not disclosed by any combination of Hirsch and Hester. Anderson discloses microbial resistant packaging wherein at least a portion of a spunbonded olefin sheet material is deformed to increase its surface area to create a pocket to envelop a medical supply or product, without compromising resistance to penetration by contaminating microorganisms. Nothing in Anderson teaches pressurization of the interior volume of a package, let alone a “pressurization gas inlet” permitting such pressurization or any “gland” as required. Accordingly, Anderson fails to supply the teachings missing in Hirsch and Hester that would be required to demonstrate a *prima facie* case of obviousness. Since the cited references fail to teach all of the limitations of the claims as required by MPEP § 2143.03 to establish a *prima facie* case of obviousness,

withdrawal of the obviousness rejections of claims 7-9, 11, 27-29, 31, 42, and 47-49 is respectfully requested.

CONCLUSION

Based on the foregoing, all of applicants' pending claims 1-11, 14, 18-31, 34, 37-49, 80, 82-84, and 86-87 are patently distinguished over the art, and in form and condition for allowance. The examiner is requested to favorably consider the foregoing, and to responsively issue a Notice of Allowance. If any issues require further resolution, the examiner is requested to contact the undersigned attorney at (919) 419-9350 to discuss them.

Respectfully submitted,



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